

We claim:

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5 1. A method of preventing or treating skin conditions characterized by increased T cell activation and abnormal antigen presentation in the dermis and epidermis comprising the step of administering to a mammal, including a human, an inhibitor of the CD2/LFA-3 interaction.

10 2. The method according to claim 1, wherein the condition is selected from the group consisting of atopic dermatitis, cutaneous T cell lymphoma such as mycosis fungoides, allergic and irritant contact dermatitis, lichen planus, alopecia areata, pyoderma gangrenosum, vitiligo, ocular cicatricial pemphigoid, and urticaria.

15 3. The method according to claim 1, wherein the condition is psoriasis.

4. The method according to claim 1, wherein the inhibitor is selected from the group consisting of anti-LFA-3 antibody homologs, and soluble CD2 polypeptides.

20 5. The method according to claim 1, wherein the inhibitor is selected from the group consisting of anti-CD2 antibody homologs and soluble LFA-3 polypeptides.

25 6. The method according to claim 5, wherein said soluble LFA-3 polypeptide is a soluble LFA-3 polypeptide fused to all or part of an immunoglobulin heavy chain region and all or part of a heavy chain constant region.

7. The method according to claim 6, wherein said soluble LFA-3 polypeptide is LFA3TIP.

8. The method according to claim 4, wherein the inhibitor is an anti-LFA-3 antibody homolog.

30 9. The method according to claim 5, wherein the inhibitor is an anti-CD2 antibody homolog.

10. The method according to claim 8, wherein the inhibitor is a monoclonal anti-LFA-3 antibody.

35 11. The method according to claim 9, wherein the inhibitor is a monoclonal anti-CD2 antibody.

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12. The method according to claim 10, wherein the inhibitor is a monoclonal anti-LFA-3 antibody produced by a hybridoma selected from the group of hybridomas having Accession Nos. ATCC HB 10693 (1E6), ATCC HB 10694 (HC-1B11), ATCC HB 10695 (7A6), and ATCC HB 10696 (8B8) or a monoclonal antibody TS2/9.

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13. The method according to claim 12, wherein the monoclonal anti-LFA-3 antibody is produced by a hybridoma selected from the group of hybridomas having Accession Nos. ATCC HB 10695 (7A6) and ATCC HB 10693 (1E6).

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14. The method according to claim 8, wherein the inhibitor is a chimeric recombinant anti-LFA-3 antibody homolog.

15. The method according to claim 9, wherein the inhibitor is a chimeric recombinant anti-CD2 antibody homolog.

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16. The method according to claim 8, wherein the inhibitor is a humanized recombinant anti-LFA-3 antibody homolog.

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17. The method according to claim 9, wherein the inhibitor is a humanized recombinant anti-CD2 antibody homolog.

18. The method according to claim 8, wherein the inhibitor is selected from the group consisting of Fab fragments, Fab' fragments, F(ab')2 fragments, F(v) fragments and intact immunoglobulin heavy chains of an anti-LFA-3 antibody homolog.

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19. The method according to claim 9, wherein the inhibitor is selected from the group consisting of Fab fragments, Fab' fragments, F(ab')2 fragments, F(v) fragments and intact immunoglobulin heavy chains of an anti-CD2 antibody homolog.

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20. The method according to claim 5, wherein the inhibitor is a soluble LFA-3 polypeptide.

21. The method according to claim 4, wherein the inhibitor is a soluble CD2 polypeptide.

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22. The method according to claim 20, wherein the inhibitor is a soluble LFA-3 polypeptide selected from the group of polypeptides consisting of AA₁-AA₉₂ of SEQ ID NO:2, AA₁-AA₈₀ of SEQ ID NO:2, AA₅₀-AA₆₅ of SEQ ID NO:2, and AA₂₀-AA₈₀ of SEQ ID NO:2.

23. The method according to claim 1, wherein the mammal is a human.

24. The method according to claim 1, wherein the inhibitor is administered at a dose between about 0.001 and about 50 mg inhibitor per kg body weight.

25. The method according to claim 24, wherein the inhibitor is administered at a dose between about 0.01 and about 10 mg inhibitor per kg body weight.

26. The method according to claim 24, wherein the inhibitor is administered at a dose between about 0.1 and about 4 mg inhibitor per kg body weight.

27. The method according to claim 24, wherein the dose is administered once to three times per week.

28. The method according to claim 24, wherein the dose is administered once to three times per day.

29. The method according to claim 28, wherein the dose is administered about one to three times daily for between 3 and 7 days.

30. The method according to claim 29, wherein the dose is administered about one to three times daily for between 3 and 7 days on a monthly basis.

31. The method according to claim 1, wherein the inhibitor is administered intravenously, intramuscularly, subcutaneously, intra-articularly, intrathecally, periostally, intratumorally, intralesionally, perilesionally by infusion, orally, topically or by inhalation.

32. The method according to claim 31, wherein the inhibitor is administered intramuscularly, intravenously or subcutaneously.

33. The method according to claim 4, wherein the inhibitor is linked to one or more members independently selected from the group consisting of anti-LFA-3 antibody homologs, soluble CD2 polypeptides, cytotoxic agents and pharmaceutical agents.

34. The method according to claim 5, wherein the inhibitor is linked to one or more members independently selected from the group consisting of anti-CD2 antibody homologs, soluble LFA-3 polypeptides, cytotoxic agents and pharmaceutical agents.

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35. The method according to claim 34, wherein the inhibitor is a polypeptide consisting of a soluble LFA-3 polypeptide linked to an immunoglobulin hinge and heavy chain constant region or portions thereof.

5 36. The method according to claim 35, wherein said polypeptide is LFA3TIP.

37. The method according to claim 1, wherein the condition is UV damage.

38. A method of preventing or treating skin conditions characterized by increased 10 T cell activation and abnormal antigen presentation in the dermis and epidermis comprising the step of administering to a mammal, including a human, a composition comprising an agent which binds to LFA-3 or CD2 chosen from the group of CD2 polypeptides, LFA-3 polypeptides, anti-CD2 antibody homologs, and anti-LFA-3 antibody homologs.

15 39. The method of claim 38, wherein said agent is a CD2 polypeptide.

40. The method of claim 39, wherein said CD2 polypeptide is a soluble CD2 polypeptide.

20 41. The method of claim 38, wherein said agent is an LFA-3 polypeptide.

42. The method of claim 41, wherein said LFA-3 polypeptide is a soluble LFA-3 polypeptide.

25 43. The method of claim 42, wherein said soluble LFA-3 polypeptide is a soluble LFA-3 polypeptide fused to all or part of an immunoglobulin heavy chain region and all or part of a heavy chain constant region.

44. The method of claim 43, wherein said soluble LFA-3 polypeptide is LFA3TIP.

30 45. The method of claim 38, wherein said agent is an anti-CD2 antibody homolog.

46. The method of claim 45, wherein said anti-CD2 antibody homolog is a humanized recombinant anti-CD2 antibody homolog or chimeric recombinant anti-CD2 antibody homolog.

35 47. The method of claim 38, wherein said agent is an anti-LFA-3 antibody homolog.

48. The method of claim 47, wherein said anti-LFA-3 antibody homolog is a humanized recombinant anti-LFA-3 antibody homolog or chimeric recombinant anti-LFA-3 antibody homolog.

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